BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Internal distribution code:
(A) [ ] Publication in OJ
(B) [ ] To Chairmen and Members
(C) [ ] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 22 September 2010

Case Number: T 1445/07 - 3.5.05

Application Number: 05012490.8

Publication Number: 1578062

IPC: H04L 12/28

Language of the proceedings: EN

Title of invention:
Automated home control using existing electrical lines as a communications medium

Applicant:
Microsoft Corporation

Headword:
Home network using electrical wiring/MICROSOFT

Relevant legal provisions (EPC 1973):
EPC Art. 56

Keyword:
"Inventive step - Main request (yes)"

Decision cited:
J 0010/07

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1445/07 - 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 22 September 2010

Appellant: MICROSOFT CORPORATION
One Microsoft Way
Redmond
Washington 98052-6399 (US)

Representative: Wallin, Nicholas James
Withers & Rogers LLP
Goldings House
2 Hays Lane
London SE1 2HW (GB)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 13 April 2007 refusing European application No. 05012490.8 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: A. Ritzka
Members: P. Cretaine
P. Schmitz

Summary of Facts and Submissions

I. This is an appeal against the decision of the examining division to refuse the European patent application No. 05 012 490.8, published as EP 1 578 062 A. The decision was announced in oral proceedings held on 28 March 2007 and written reasons were dispatched on 13 April 2007.

II. The application was refused because of lack of inventive step (Article 52(1) EPC and Article 56 EPC 1973) of the claims of a Main Request, a First Auxiliary Request, a Second Auxiliary Request and a Third Auxiliary Request, having regard to the combination of the following prior art documents:

D1: US 5592482

D2: O'BRIEN JR T. E.: "PHYSICAL AND MEDIA SPECIFICATIONS OF THE CXBUS", IEEE Transactions on Consumer Electronics, vol. 37, no. 3, 1 August 1991, pages 357-366.

III. The notice of appeal was submitted on 9 May 2007 and the appeal fee was paid on 11 May 2007. In the statement setting out the grounds of appeal, submitted on 10 August 2007, it was requested that the appealed decision be set aside and that a patent be granted on the basis of one of the four requests on which the decision under appeal was based. Reimbursement of the appeal fee by virtue of substantial procedural violation was also requested. Oral proceedings were requested on an auxiliary basis.

IV. A summons to oral proceedings to be held on 17 September 2010 was issued on 30 June 2010. In an annex accompanying the summons the board expressed the preliminary opinion that independent claims 13 and 18 of the Main Request, independent claims 1, 12 and 16 of the First Auxiliary Request, and independent claims 12 and 16 of the Second and Third Auxiliary Requests did not fulfil the requirements of Article 84 EPC. The subject-matter of independent claim 1 of the Main Request did not fulfil the requirements of Article 56 EPC 1973 in the light of D1 when combined with D2. The board gave its reasons for these objections and stated that the appellant's arguments were not convincing. The board further expressed the opinion that the claims according to the Second and Third auxiliary Requests appeared to be allowable, provided the clarity objections in respect of independent claims 12 and 16 were overcome. As to the request for reimbursement of the appeal fee, the board considered it to be not allowable.

V. With a letter dated 15 July 2010 the appellant requested a postponement of the oral proceedings and provided reasons for it. In an official communication dated 21 July 2010, the board allowed said request and postponed the oral proceedings until 21 September 2010.

VI. With a letter received by telefax on 16 August 2010, the appellant filed a set of claims 1 to 11 corresponding to claims 1 to 11 of the existing Second Auxiliary Request as a new Main Request and a set of claims 1 to 11 corresponding to claims 1 to 11 of the existing Third Auxiliary Request as a new First Auxiliary Request. He further filed amended description

pages 3 and 4 for both requests. Further, the appellant withdrew the request for reimbursement of the appeal fee.

VII. In an official communication sent by telefax on 31 August 2010, the board announced that oral proceedings were cancelled.

VIII. Independent claim 1 according to the Main Request reads as follows:

"1. A system (10) for electronic communications using electrical power lines (11) in a building, comprising:
a plurality of components (12, 14, 16, 18, 20, 22) that are connected for communications among themselves through the electrical power lines (11);
a control transmitter (30) associated with at least one of the components for transmitting control data using a frequency channel of a first type on the electrical power lines (11) at a bandwidth of a first type;
a control receiver (34; 39; 54) associated with at least one of the components for receiving control data using the frequency channel of the first type;
an analog signal source (42, 46) associated with at least one of the components for transmitting an analog signal using a frequency channel of a second type on the electrical power lines at a bandwidth of a second type.[sic]
an analog signal receiver (50) associated with at least one of the components for receiving the analog signal using the frequency channel of the second type;
wherein the analog signal is a signal other than an electrical power signal and wherein the bandwidth of

the first type is of a lower bandwidth than the bandwidth of the second type;
the system being characterised by further comprising a plurality of the control transmitters (30) and receivers (34; 39; 54) associated with respective components, the control transmitters and receivers being configured to transmit and receive control data using the same frequency channel of the first type;
wherein the analog signal source and the analog signal receiver are capable of using a plurality of frequency channels of the second type; and
wherein the frequency channel of the second type used by the analog signal source and the analog signal receiver is selectable from the plurality of frequency channels of the second type in response to control data transmitted using the frequency channel of the first type."

In independent claim 1 according to the First Auxiliary Request the last feature specifying wherefrom the frequency channel of the second type used by the analog signal source and the analog signal receiver is selectable has been replaced by:

"wherein the frequency channel of the second type used by the analog signal source and the analog signal receiver is selectable from available channels of the plurality of frequency channels of the second type in response to control data transmitted using the frequency channel of the first type."

IX. The appellant has requested that the decision under appeal be set aside and that a patent be granted on the basis of one of the two sets of claims filed with

letter of 16 August 2010 as Main Request and as First Auxiliary Request.

Reasons for the Decision

1. Admissibility

The appeal complies with the provisions of Article 106 to 108 EPC 1973, which are applicable according to J 10/07, point 1 (cf. Facts and Submissions, item III. above). Therefore it is admissible.

Main Request

2. Claims 1 to 11 of this request correspond to claims 1 to 11 according to the previous Second Auxiliary Request. The deletion of claims 12 to 19 overcomes the clarity objections raised in the summons to oral proceedings.

3. Inventive step - Article 56 EPC 1973

3.1 D1 discloses a system for distributing television/video signals over the home electrical power lines. A cable TV signal is delivered to channel selectors (references 22-28 in figure 1) which can tune individual channels (i.e. programs) from the cable signal. Each selector is connected to a Power Line Video Coupler PLVC (references 14-20 in figure 1) which couples the video signal into the house electrical wiring over a fixed frequency band allocated to this selector. Each PLVC and selector arrangement can thus transmit a different cable TV channel (i.e. a different TV program) onto the

power wires. At the receiver's side, corresponding receiving PLVCs (references 37-42 in figure 1) are tuned to the same frequency as their respective corresponding PLVCs on the emitter side. In order to allow for TV channel (i.e. TV program) selection, each PLVC on the receiving side transmits a selector signal to its corresponding PLVC on the emitter side; to this aim four selector signal frequencies of 1 MHz bandwidth each are used, enabling the selection of four different TV channels (i.e. TV programs). The plurality of components defined in claim 1 of the Main Request correspond to the selector/PLVCs pair on the emitting side and to the PLVCs/TVs pairs sets on the receiving side of D1. The control transmitter and control receiver defined in claim 1 correspond to one of the four PLVCs on the receiving side and its corresponding PLVC on the emitting side of D1, whereas the control data using the frequency channel of the first type corresponds to the selector signal at the selector signal frequency sent by said PLVC on the receiving side in D1. The analog signal source and analog signal receiver defined in claim 1 correspond to a PLVC on the emitting side and its corresponding PLVC on the receiving side in D1.

In the board's judgement D1 represents the closest prior art to the subject-matter of claim 1.

The differences between the subject-matter of claim 1 and the disclosure of D1 are that in claim 1 a plurality of control transmitters and control receivers are configured to transmit and receive control data using the same frequency channel of the first type instead of having control data exchanged using a

dedicated frequency channel for each PLVCs pair in D1, that the analog signal source and the analog signal receiver are capable of using a plurality of frequency channels of the second type which is selectable from this plurality of frequency channels of the second type in response to control data transmitted using the frequency channel of the first type, instead of a fixed channel in D1. In other words, the differences consist in the provision of a common low-bandwidth control channel over which the plurality of control transmitters and receivers communicate, and which is used to indicate which of the high-bandwidth channels should be selected for use by a signal source and a signal receiver.

The technical effect achieved by theses differences is that channel selection is possible and that a single bandwidth has to be reserved for control data. The objective technical problem can therefore be defined as how to allocate frequency channels of the second type in a bandwidth efficient manner.

D1 does not suggest the objective technical problem since it only considers fixed channel reservation. Hence channel allocation or selection is not an issue during operation.

The board therefore judges that the subject-matter of claim 1 is not rendered obvious by the disclosure of D1.

3.2 D2 discloses a home video distribution system on pairs of coaxial cables, denominated CXBus, allowing interconnection of various appliances such as TVs and VCRs. In particular D2 teaches on page 360, left hand

column, last paragraph, in combination with figure 6, to use a single control channel, shared by all transmitters and receivers, for handling resource (i.e. channels) requests on the CXBus. However, all what this paragraph teaches is that the control channel is used to reserve a channel, and that a channel which has been allocated to a device is retained by reporting busy status to any other devices that subsequently request the same channel. The board therefore agrees with the appellant's argument that this paragraph, which is the only one in D2 dealing with channel allocation, does not disclose or even suggest how channel selection is performed. In particular, the disclosure of D2 in that respect encompasses the case where a fixed channel, i.e. always the same channel, is allocated to a device each time said device requests a channel.

Thus, the board judges that D2 does not disclose channel selection, so that a combination of D1 and D2 would not lead to the subject-matter of claim 1.

3.3 The subject-matter of claim 1 therefore involves an inventive step having regard to the disclosure of D1 and D2 (Article 56 EPC 1973). Independent claim 7 contains substantially the same features as claim 1 but expressed in terms of a method claim, and as such also meets the requirements of Article 56 EPC 1973.

First Auxiliary Request

4. Since the Main Request is allowable, the board does not need to consider the First Auxiliary Request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to grant a patent on the basis of:

   – claims 1 to 11 of the Main Request filed with letter received by telefax on 16 August 2010,

   – description pages 1, 2 and 5 to 11 as originally filed and description pages 3 and 4 of the Main Request filed with letter received by telefax on 16 August 2010,

   – drawings sheets 1/3 to 3/3 as originally filed.

The Registrar The Chair

K. Götz A. Ritzka